REMARKS

In the Final Office Action, the Examiner has imposed a restriction requirement between Group I drawn to a liner (claims 1-12) and Group II drawn to a system for hydrothermal treatment (claims 21-28). The Examiner has further indicated that Group I has been constructively elected by Applicant, and as a consequence, Group II claims (i.e. claims 21-28) have been withdrawn from consideration. Also in the Final Office Action, claims 1-12 have been rejected under 35 U.S.C. §103 in view of various references.

In response, Applicant has filed this Request for Continued Examination (RCE). Enclosed herewith is an RCE transmittal and an RCE fee. Also in response, claims 21-28 are hereby cancelled without prejudice. In addition, independent claims 1 and 11 have been amended to now recite a liner comprising a porous layer, a non-porous layer and a connector for establishing fluid communication with the porous layer. As amended, claims 1 and 11 further recite a pump (claim 1) or means for pumping (claim 11) to pump a heat transfer fluid through the porous layer to cool the non-porous layer and reduce accumulation of insoluble salts on the liner. Support for these amendments is found in the specification beginning on page 8 lines 10-15.

Amendments to the claims have been presented herein to improve the readability of the claims and to point out the features which distinguish the present invention over the cited art. Also, these amendments have been made to more clearly define the structure and cooperation of structure for the present invention. Claims 1-12 remain pending.

Rejections under 35 U.S.C. § 103(a)

In the Final Office Action, claims 1-12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hervert et al. (U.S. Patent Number 3,472,632) and further in view of Hazlebeck (U.S. Patent Number 6,238,568). The Examiner has indicated that Hervert et al. disclose a liner for a hydrothermal pressure vessel comprised of a porous layer, a non-porous layer, a connector, and a seal for coupling a non-porous layer to the wall. The Examiner has acknowledged that Hervert et al. fail to teach a pump in fluid communication with the connector. In this regard, the Examiner has indicated that Hazlebeck discloses a pump (68) for the purpose of cooling a reactor.

In this Response to Office Action, both independent claims (i.e. claims 1 and 11) have been amended and now recite, *inter alia*, a liner for a hydrothermal pressure vessel comprising a porous layer, a non-porous layer and a pump (claim 1) or pumping means (claim 11) to pump a heat transfer fluid through the porous layer to cool the non-porous layer and reduce the accumulation of insoluble salts on the liner.

No such structure or cooperation of structure is taught or suggested by either of the cited references (i.e. Hervert et al. '632 or Hazlebeck '568) taken alone or in combination. Specifically, none of the cited references disclose a liner having a porous layer that is cooled by pumping a fluid though the porous layer. Although Hervert et al. '632 disclose a liner having a porous layer, its use is limited to leak detection. Indeed, as the Examiner has correctly pointed out, Hervert et al. '632 do not disclose a pump in fluid communication with the porous layer or the circulation of a fluid through the porous layer to cool a liner.

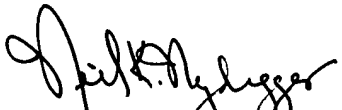
The teaching that is lacking in Hervert et al. '632 is not provided by the Hazlebeck '568 reference. Specifically, the Hazlebeck '568 reference does not even disclose a liner having a porous layer. Instead, and quite unlike the liner of the present invention, the Hazlebeck '568 reference discloses a reactor wherein a stream of quenching fluid is introduced into the reactor near a reactor exit port for contact with the reactants. In particular, this quenching fluid is directed toward the exit port of the reactor to dissolve solids near the port and prevent the port from plugging (see Hazlebeck '568, Col. 7, lines 35-59). There is no teaching in the Hazlebeck '568 reference that the stream of quenching fluid can be used to cool a liner, and importantly, there is no suggestion that the quenching fluid can be circulated through a porous layer of a liner. Thus, neither of the cited references disclose a structure for cooling a liner to reduce the accumulation of insoluble salts on the liner as now claimed for the present invention.

Accordingly, Attorney for Applicant respectfully contends that independent claims 1 and 11, as amended, are patentably distinguishable from the cited references (Hervert et al '632. and Hazlebeck '568). Further, since claims 2-10 and 12 depend either directly or indirectly from independent claim 1 or 11 they are likewise allowable. For the reasons set forth above, Applicant believes that the basis for rejecting claims 1-12 under 35 U.S.C. § 103(a) has been overcome and the rejections should be withdrawn.

In conclusion, Applicant respectfully asserts that claims 1-12 are patentable for the reasons set forth above, and that the application is now in a condition for allowance. Accordingly, an early notice of allowance is respectfully requested. The Examiner is requested to call the undersigned at 619-688-1300 for any reason that would advance the instant application to issue.

Dated this 12th day of October, 2004.

Respectfully submitted,



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	David A. Hazlebeck	)	
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Serial No:	09/753,319	)	Art Unit
		)	1725
Filed:	December 28, 2000	)	
		)	
For:	SYSTEM AND METHOD FOR HYDROTHERMAL REACTIONS - TWO LAYER LINER	)	
		)	
Examiner:	Len Tran	)	
		)	
Customer No:	23862	)	
		)	
Attorney Docket:	11156.79	)	

CERTIFICATE OF MAILING UNDER 37 CFR § 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 12th day of October, 2004.

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Legal Document Assistant

Transmitted: Transmittal of "Submission for Request for Continued Examination (RCE) - Response to Final Office Action" dated July 16, 2004.

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